

432 MHz AND ABOVE EME NEWS

February 2001 VOL 30 # 2

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EME NETS

14.345, 10 AM ET SATURDAYS, AFTER VARO NET SUNDAYS:

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CONDITIONS

432 and 1296 reports indicate both good conditions and activities, but the microwave bands (3 and 6 cm) stole the show with more initials and reports than have been seen for many moons. Also a real break through appears to have occurred with the 1st true DSP EME QSO taking place on 1296 between W7SZ and W7LHL – see W7SZ's reports. This new practical technology offers EME QSOs between smaller stations than presently possible.

EME SSB CONTEST

The contest starts on 3 Feb at 1100 and continues to 4 Feb at 1200. Operation is on 1296 only. SSB- SSB or SSB-CW contacts count. The exchange is your Grid Sectors (IO, JM, FN,...). See the Jan NL for the rules.

WORLD WIDE EME MARATHON 2000

This is reminder that there are just a few days left to send in your logs for the EME Marathon Contest sponsored by the ARI. The deadline is 31 Jan. The contest covers all EME Contacts made during 2000. Full rules can be found at:

EME MARATON 2000

Logs should be sent to Iwobet Giovanni Zangara, P.O. BOX 36, 00100 ROMA CENTRO, ITALIA or by e-mail to:

Iwobet Zangara

I have no info as to if there will be a 2001 contest.

AA5C

Greg's Jan EME Report -- I'm pleased to report 3 cm EME contacts with HB9BHU 13 Jan for initial #23 and with OK1UWA on 14 Jan for #24. I fought Murphy a bit with condensation from a cold and wet winter fog shorting out the TWTA power and control at the dish but managed to get things cleared up in time for the skeds. Conditions were good and all signals (O) copy or better.

AL7OB

Mike is back in Alaska, but had some dish problems upon his return -- I had a

very nice trip to Atlanta. The highlight was meeting WA4NJP and seeing his setup. I got back today just before sunset and realized that the wind had shifted my tie down chains and my AZ drive shaft was broken. Daylight was no more and I was just not up to fixing it in the dark and cold after flying for 10 hours. So I had to cancel my skeds with DK3WG and DJ3FI. I hoped to be back on 14 Jan, but WX prevented this. Right now I am trying to have everything optimized for the Feb SW.

DL5LF

Franks continues to add initials with his 1 yagi station. During the SW on 6/7 Jan he worked NC1I with a very loud signal and K1FO, and had a partial with W1XZ. He heard Willie only in his 3rd period with a weak signal. Later heard him calling ON5OF and tried calling CQ with no success. [Email](#) to Frank should be sent his home as he has no access to his work mail address from home.

DL8OBU

Juergen writes that he is not presently QRV on 23 cm EME -- I'm building a new PA for 23cm with an RS1064. I hope to have it ready within the next year, and will give 1296 at try with 4 x 67 el yagis or a small dish, if I can locate a mesh dish about 3 m in dia for a nice price.

EI7FJ

Billy, Marten, Mitch and others are trying to Ireland back on 70 cm EME from IO62rg. The station will operate under the EME call EI9E of Irish Radio-Television and consists of 2 x 29 el yagis, a single 3CX800 PA and TS- 811 or FT-847. The AZ/EL mount is ready. They can be reached via email at: [EI7FJ](#)

F1ANH

Jean Pierre reports some big signals on 6 cm EME. I contacted on 6 Jan OE9PMJ (459/449) for initial #2, OE9YTV (459/449) #3 and OE9ERC (449/339) #4, and heard VE4MA, on 7 Jan F2TU (439/449) and (32/43) on SSB - cured his chirpy signal, and on 8 Jan F2TU (439/449) - with only a 2.8 m dish the echoes were still there. I am now using a circular polarized horn based on an IMU design. Signals are best from other station having circular pol as F2TU. The adjustment of the screws to get circular pol is not difficult and the horn is easy to build - see ZS6AXT's description in the NL.

F2TU

Philippe was activity only 5760 in Jan. My initial results were very encouraging. In spite of a chirpy LO (on RX and TX) of a few hundred Hz, I QSO'd on 3 Jan OE9PMJ (O/O) #3 and 1st F/OE EME on 6 cm and OE9YTV (O/O) #4, on 6 Jan OE9ERC (O/O) #5, F1ANH (O/M) random, VE4MA (M/M) #6 for 1st F/VE, and copied WA5ICW (0), on 7 Jan F1ANH (549/439) and (43/32) on SSB - resolved my chip problem and had very strong echoes with my 12 W, and on 8 Jan repeat

with F1ANH. My echoes peak to 17 dB and average about 10 dB on AF9Y's FFTDSP program. I hope that circular pol will be universally adopted for 6 cm EME. I will be QRV in Feb on 23 cm for the SSB contest.

F1PYR

André (A. ESNAULT, 11 rue des écoles, 95680 MONTLIGNON, FRANCE) can be reached at [F1PYR](#) or telephone at 00 33 01 4085 7737 at his office, 00 33 01 4799 8854 by fax and 00 33 06 0854 8449 mobile. He recently started operation on 23 cm EME. His equipment is a 3.1 m dish with .35 f/d, 800 W PA, 0.7 dB NF LNA and FT790. Andre' worked 9 Dec G4CCH (O/O) and G3LTF (519/519), on 10 Dec OE9XXI (O/559), on 11 Dec DJ5MN (0/0), on 17 Dec HB9Q (559/599), 5 Jan K5JL (559/569), on 6 Jan HB9Q (559/539), on 7 Jan DL6LAU (559/599), DJ9YW (559/559), G4CCH (0/0), F5PL (559/549), SM6CKU (0/0), N2IQ (559/559), K5JL (559/569) and K0YW (0/559), and on 9 Jan G4CCH (559/559) and DJ9YW (519/559). He is mainly interested in random QSOs, and will keep us informed as to when he plans to be QRV.

G4YTL

David is located in IO92 and is now QRV on 70 cm EME. He hopes to be on random regularly. Nights are best for him – he can available any weekday between 2200-0600. He is using 6 x 11 lambda BV yagis and 1000 W PA. Thus far he is up to initial #34 and DXCC 17. His email is at: [David, G4YTL](#)

G4CCH

Howard continues to be a 1296 spark plug of activity. He worked on 6 Jan K5JL - nice CW practice session, W5LUA, W2UHI, CWNR W4RDI, KA0Y, K0YW, W7SZ, VE1ALQ, W7QX sounded as if a hum was on his carrier and WA1JOF. Howard stayed on until 0130.

G3LTF

Peter's Jan EME report. I found lots of activity on 1296, especially in the US window, not so much on 432. Even though I was only on 70 cm around moonrise, there was a very sharp 90 deg Faraday rotation. WX was kind with clear skies and no wind. I worked on 5 Jan on 432 EA3DXU and DL9NDD, and on 6 Jan on 432 JH1XUJ, JH4JLV, UA3PTW and CWNR JS3SIM, then on 1296 ZS6AXT, G3LQR on CW and SSB, IK2MMB, OZ6OL, SM2CEW, W2UHI, G4CCH, KA0Y for initial #170, HB9Q, K0YW, K5JL and VE6NA #171 - tailended W5LUA's sked, and on 7 Jan on 1296 DL6LAU on CW and SSB, G4CCH on SSB, F5PL, GW3XYW on SSB, SM6CKU, F1PYR, VE6TA, K5JL K0YW, CWNR PA3DZL, CWNR DJ9YW - heard were HA5SHF, W7SZ, WA1JOF and W1QC, and on 432 G4ERG and UT3LL. The new 1296 feed is working very well as evidenced by my increase in SSB QSOs. I am receiving excellent SSB echoes. I intend to try and repeat the trick on 2304.

IK2MMB

Sergio reports that he took things easy during the SW on 1296. I made some random QSOs and worked a few skeds. Best echoes and condx were on Saturday evening until 2200 then big fading showed up. Sunday condx were not as good with deep rapid QSB. It was a pain to manually aim the antenna for best echoes - (my elevation automation is not yet complete). I heard WA1JOF on one of his skeds. He was not too strong but good enough for a QSO. Heard decently was F1PYR Sat night. I called him but he only replied with QRZ, we'll do it next time. ZS6AXT is always heard with deep quick fading even in good conditions as we are almost on the same longitude and at opposite latitudes with respect to the equator. It is interesting for me to monitor Ivo's signal. I prefer random but am available for skeds at, [IK2MMB](#), with my 3.5 m dish, long IMU feed and

K0YW

Bruce is having trouble with his big 23 cm amp and has taken it off the air to await some new Ultim bypass material sent courtesy of K5JL -- I've learned a lot of little tricks about these boxes, not all of them good! In the meantime, I'm staying active off the moon with my 200- 250 W 2x7289 driver. It provides very reliable S4-5 echoes off the moon. I am on 23 cm almost every time we have moon. During the SW I worked on 5 Jan W5 LUA (559/569), VE1ALQ (559/579), W2UHI (569/579), KD4LT (55/54) on SSB, W7SZ (549/569) and G4CCH (569/589), on 6 Jan KA0Y (569/579), G3LTF (559/569), ZS6AXT (559/579), W2UHI (569/589), DF9QX (549/569) for initial #83, IK2MMB (569/579), PA3DZL (339/549) #84, HB9Q (579/539), G4CCH (579/589) and WA6PY (539/549), and on 7 Jan K5JL (589/589), W7QX (539/569) - big 120 Hz hum with subcarriers and OZ6OL (559/579). Also heard but not called were W5 LUA, W4RDI, W4AD, HA5SHF, WA1JOF, VE6NA, VE6TA and K3AX. On Sunday, 7 Jan, my power was down to 200 W at feed, but I managed to add QSOs with G3LTF (559/559), G3LQR (549/579), K5JL (579/589), partial F1PYR (559/519) (this would have been initial #85 but he sent my call repeatedly as KJYW), WA1JOF (529/539), VE6NA (549/449), OZ6OL (559/569) and DL6LAU (559/559). Heard on Sunday were W4AD, IK2MMD and OE9ERC (599). On Monday night I caught OZ6OL for a nice SSB ragchew along with WA1JOF.

K5JL

Jay reports that on Sunday 7 Jan K5JL called CQ, and WA1JOF and IK2MMB replied. Jay worked Don first then called IK2MMB and had good QSO. There was activity every night on 23 cm. He reports that KA0Y is creeping up in signal strength. There were 26 stateside stations on and total of 42 stations worked during the SW.

KA0Y

Ken was active during the SW on 1296 and QSO'd on Friday night G4CCH

(569/569), W2UHI (559/559), W5LUA (559/559), VE1ALQ (579/569) and K5JL (579/569) heard were KD4LT, W4RDI and many others, and on Saturday night HB9Q (579/559), G3LQR (579/559), DF9QX (569/569), G3LTF(559/569), IK2MMB (559/569), ZS6AXT (579/579), K0YW (579/569), W4RDI (569/559), PA3DZL (549/549) and OZ6OL (579/579) – heard were K5JL, W4AD and many others. Sunday night was also a good. Ken QSO'd KD4LT, DL6LAU, W4AD, OE9ERC (599), K9BCT, OE9ERC (to re-issued report to (579) after being chastised by K5JL for giving the same report as JL), W6HD and VE6NA (confused with VE6TA).

KD4LT

Scott returned to active status for the Jan SW and worked the following stations. He QSO'd on 23 cm W5LUA, W2UHI, K0YW on SSB, HA5SHF, VE6NA for initial #100, W4AD #101, HB9Q #102, WA6PY #103, KA0Y #104 and DL6LAU #105, and on 70 cm G4ERG, DF3RU, NC1I, K1FO and KJ77 for initial #339. Total initials for the SW were 6 on 23 cm and 1 on 70 cm. Current standings are on 23 cm initials #105, DXCC 29, WAS 20, and on 70 cm initial #339, DXCC 48, WAS 38. Scott worked only 5 stations during the ARRL contest. A lack of time and tracking problems with his 22' 23 cm dish kept him on the sidelines. Initials worked in 2000 include K4AR, RA3LE, T92U, K6JEY all on 70 cm, and on 23 cm W1QC, LU8EDR, OH2DG, OX2K, HG100BAY, G4CCH, WA1JOF, EA8/LA8LF and K0YW. His standings on 70 cm is up to initial #335, DXCC 48 and state 38, and on 23 cm initial #103, DXCC 29 and state 20. All his equipment is working FB now and Scott plans to be much more active in 2001. Scott is open to skeds anytime the moon is visible at a "workable" hour in NA. His e-mail address is [Scott, KD4LT](#)

N1BUG

Paul is now QRV on 432 EME from FN55mf with a single 22 el yagi but with no elevation and 550 W PA. Thus far he has worked at least 4 stations: DL9KR, K1FO, PA3CSG and SM2CEW, but did not hear N2IQ or KD4LT. Paul finds that a moon el of 2-9 degs works well. His address is (Paul Kelley, PO Box 16, Dover-Foxcroft, ME 04426) and phone is (207) 943-7484. His e-mail address is [Paul, N1BUG](#)

NC1I

Frank at [e-mail](#) writes -- I managed to find some time to dust off the equipment and return to EME during the Jan SW after making only 4 QSOs since last Jan. I was pleased to find things in good working order. Surprisingly I have not even had to recalibrate my readouts since putting the system up in 1994. In fact the only maintenance I have had to do since 1995 is To replace some of my coaxial phasing lines 2 years ago. Hopefully my luck will continue through 2001! I found activity and conditions fair on 5 Jan, but much improved on the 6th. Asian

activity seemed sparse. At times my echoes just seemed HUGE, perhaps as loud as I have ever heard them. I will make a strong effort to be more active during the coming months. The following stations were logged over the weekend. On 5 Jan at 2254 EA3DXU (539/549), 0152 N9AB (579/559), 0204 KA0RYT (439/559) and 0408 K1FO (579/589), and on 6 Jan at 0533 WB0GGM (449/559), 0610 KJ7F (549/449), 0619 VK4AFL (559/579), 0632 partial JA3IAF (559/disappeared), 0639 K5WXN (449/559), 0652 JA3IAF (559/569), 0700 KL7HFQ (449/559), 0710 JH1XUJ (559/559), 2016 G4ERG (549/569), 2030 G3HUL (549/559), 2048 OE3JPC (539/569), 2057 N2IQ (589/589), 2112 KD4LT (559/569), 2124 DL9KR (599/599) - outstanding HF quality rag chew, 2136 I5CTE (539/559), 2149 DJ3FI (569/559) and 2158 DL5LF (439/559).

[OE5JFL](#)

Hannes' delayed ARRL Contest report -- I was QRV for about 20 hours in both parts of the ARRL Contest. All together I worked on 70 cm 71x28, on 23 cm 51x24 and 2m 31x17 for a total of 153x69 or 1,055,700 points. 2m is more and more a problem when the moon is in the direction of the town nearby. My noise floor is increased several dB in this direction. Moonrise is still good. Never before had I heard JA4BLC so strong, but it is quite difficult to the US. New stations worked on 70 cm were G4YTL for initial #534, LA9NEA #535, HA5BDJ #536, K4EME #537, RW3PF #538, JR4IUH #539, PA4FP #540 and KE2N #541, and on 23 cm DK0ZAB for initial #197, DL6LAU #198, KA0YW #199, PA3DZL #200, K3AX #201, K5GW #202, WA9OUU #203, EA/LA8LF #204, WA1JOF #205 and F1AOT #206. From time to time I get requests about my stand alone EME antenna controller that I had developed using a microcontroller - no PC. ON5RR kindly took over the job building modules. It is also possible to get kits from him or the complete controller. He also a source for absolute encoders fitting to the system. His E-mail is . For controller details look at my WEB page at:

[OE5JFL Controller details.](#)

[OH2DG](#)

Eino's final results from the ARRL EME Contest -- The weather conditions were great. My 2nd period initials were on 23 cm DL6LAU for initials #87 and DK0ZAB #88. QSO'd were On 21 Oct on 1296 JA4BLC, G3LTF, OH2AXH, DJ5MN, SM3AKW, HB9BHU, OZ4MM, JH5LUZ, G4CCH, DF4PV, OE9XXI, OE5EYM, DH9FAG, OK1CA, F1ANH, PA3CSG, OZ6OL, W2UHI, SM2CEW, K2DH, F5PAU, K2UYH, W5LUA, W1QA, K5JL, W6HD, CT1DMK, WD5AG and K4QI, on 22 Oct on 432 DL7APV, G3SEK, OZ4MM and OH2PO, on 13 cm OZ4MM and W5LUA, back on 432 N2IQ, OE5JFL, K1FO and SM2CEW, and on 18 Nov on 1296 G3LQR, HB9BBD, DL6LAU, JA6CZD, ZS6AXT, DK0ZAB, F2TU, OE9ERC, K0YW and DJ9YW. My final score was on 70 cm 8x8, on 23 cm 39x19 and on 13 cm 2x2 for 142,100 points. I did not get my 70 cm PA ready in

time for the contest, but it is now working FB. The power tube is a GS23B. The fast over current protection circuit was a lot of work, but now operates correctly. I tested it during the Jan SW.

ON5OF

Dirk did not have a good month. He was in an injured in an accident and will be unable to work for 4 months. 13 screws were put into his right wrist and his left ankle was also fractured and operated on. But what has him really upset is that his entries in the ARRL EME Contest as 2 separate stations (from France in Oct, and from Belgium in Nov) have been disallowed because he used some of the same equipment at both locations. (They will consider the larger of his 2 logs as an entry.) The irony of this sad situation is that Dirk's 2 separate entries were disqualified because he used an ICOM 820 at both QTHs not the PA's or antennas! The fact that he was operating from two different countries did not seem to matter. This interpretation of the rules shows a misunderstanding of what EME is all about! As it turns out, Dirk used different ICOM 820's at the 2 locations. So hopefully both of his entries will be accepted, and the coming months will go much better for him.

PA3DZL

Jac was active on 23 cm random during the SW. He QSO'd on 6 Jan G4CCH (539/539), HB9Q (419/559), K5JL (539/559), KAØY (549/549) for initial #29, KØYW (339/549) #30 and W2UHI (O/449), and 7 Jan G4CCH (549/549), OE9ERC (559/569) #31 and K5JL (549/559). On 7 Jan I heard for the 1st time my own echoes on 23 cm just a few dB's above the noise, but they were there! It was great to hear echoes with my small station: 2.5 m dish, VE4MA feed, 150 W at the feed and 0.4 dB NF FHX35LG preamp.

RW1AW

Alex is working towards 23 cm EME and hopes to be QRV from his home QTH by Mar or April. On 23 cm he will have a 4 m dish and 500 w. Alex is also planning with RU1AA and RW3BP some dxpedition activity for 70 cm. Their portable station will have 4x40 el yagis and a 2.5 kW PA. They hope to have this station ready by Sept.

SM2BYA

Gudmund wrote that he planned to be QRV during the Jan SW from his old family farm in central Sweden (JP81NX). Unfortunately this info did not arrive in time for the Jan NL. I wonder if anyone heard him? He was using the call SM3BYA with 8 x Tonna 21 el yagis and 450 W PA. Gudmund's email is at: [Gudmund, SM2BYA](#)

SM2CEW

Peter's report for the newsletter -- The year 2001 has so far greeted us with good

EME conditions. I was QRV on 432 on 6 Jan 6 and worked the following stations: OE3JPC, OH2DG, JH1XUJ, JS3SIM, DJ3FI, EA3DXU, I5CTE, G4ALH, JH4JLV and DF3RU. I heard N1BUG very well in his sked with PA3CSG. On 7 Jan I worked DL8OBU, OE3JPC, and N1BUG for an initial. Paul had good signals again. I was also QRV on 432 during the moon eclipse on 9 Jan. Signals were very good indeed and I worked DL8OBU, OH2DG, UT3LL and G3HUL. On 6 Jan on 1296 and worked WA1JOF (539) for an initial. A fuse blew in the middle of this QSO that took a few minutes to fix. Excellent signals were also received from HB9Q, VE1ALQ, ZS6AXT and G3LTF. Conditions were excellent and it was nice to be able to exchange greetings for the New Year during the QSOs. I will be QRV for the upcoming SW/SSB Contest if the WX is ok.

VE1ALQ

Darrell made initials during Jan on 70 cm with KJ7F #190 and DJ3FI #191 - both with great signals, and on 23 cm with KA0Y #131, W4AD #132, VE6NA #133 and WA6PY #134 also all with surprisingly good signals. Darrell's totals are on 70 cm initial #191, DXCC 28 and state 32, on 23 cm initials 134, DXCC 31 and state 23, and 5 cm initial #13, DXCC 11 and state 3.

VE4MA

Barry fills us in on his 24 GHz EME status -- I have been playing around with a new 8' x 9' Prodelin offset dish with 0.7 f/d, a good 1.55 dB NF preamp and this weekend a new IMU feedhorn (larger size thanks to W1GHZ calculations). I'm very happy with the results! I get a solid 14.9 dB of Sun noise and 2.1 dB moon noise - a truly amazing dish! My priority now is to get a bigger TWTA working. Power supply mods are required. Presently I do have 11 W. I should be ready to conduct echo test in the next month or so, but I still have station integration work to do.

W1ZX

Willie was on 70 cm during the past SW. He worked on 6 Jan at 2200 nil DL5LF, 2230 nil ON5OF, 2300 nil HA1HA, 2344 DL3RU (559/559) and 2354 K5AZU (559/559), and on 7 Jan at 0010 K1FO (579/569) and 0630 partial VK4AFL (-/339) – heard during his 3rd transmission, but lost his signal due to tree blockage. Willie listened for echoes the following day, but heard none. He found that his TX relay was not working. After repairs he tried on 11 Jan at 0300 with PA4AF but heard nil. This time it was Frank whom was having the relay problems.

W4OP

Dale writes -- I am completing a 3 cm EME station and have observed that the horizontal US and vertical Eur scheme leaves a lot to be desired as the resultant geo rotation is many times as much as 40 degrees away from being optimum. This is further complicated for me as I use a polar mount. My current feed is fixed linear (Chaparral Superfeed with waveguide transformer to improve

VSWR), but I have a rotatable feed that allows me to optimize polarity angle from the shack. I still need to just the VSWR at 10.368. It looks as though at some point everyone will be switching to circular pol and this will all be moot. In the near future I will be taking down my 9' dish and putting up a 12' dish that I plan to expand to 13'. I will use this dish with a diagonal feed on 23 cm, as well as 3 cm.

W7SZ

Larry completed on 9 Jan what may be the 1st true DSP EME QSO. It was certainly the 1st such QSO I know of on 1296 -- High wind resulted in very limited air time during the activity weekend. On 23 cm I worked K0YW, G4CCH, W2UHI, K5JL and HB9Q. Also heard were VE1ALQ, KD4LT and ZS6AXT before securing the dish. On 9 Jan I worked W7LHL on 23 cm using FSK. Both our stations were using software developed by W7PUA for his DSP-10 transceiver. We were frequency locked to within 1 Hz via a GPS controlled standard. TX Doppler correction was also controlled by this program. W7LHL was using a 10' dish with 50 W and I was using similar power to 12' dish. We exchanged calls, grids and rogers, all in text form. This system is presently in beta test. It shows promise for QSOs at much lower power levels than used during this test - well below the threshold of human hearing. However, both stations must use the same system. [I received a more detailed report on this innovative system, but somehow the file became corrupted. I promise to have more details next month.]

WA1JOF

Don worked the following initials during the SW on 1296: SM2CEW, PA3CSG, ZS6AXT, W4RDI and HA5SHF. In skeds he heard VE6NA weakly, nil from WA6PY and WA8WZG was not on. He also heard a total of 17 stations and worked some of the regulars. Later he added W4AD and WA6PY and is now up to initial #40. He ran with VE6NA again but heard nil.

WA6PY

Paul's report -- On 1296 between 6 10 Jan I QSO'd KD4LT, VE1ALQ, W7QX, WA4OFS, K0YW and K5JL. Partials during skeds were JA8IAD (O/-), WA1JOF (M/-) and JA4BLC nil. I now am up to initials #25. I am working on my setup for 2304/2320/2424 for the Feb SW. I do not plan to be QRV on 23 cm. At present I am using my 20 year old Xtal exciter, which I can tune only between 2304.000 to 2304.080. My absolute TX frequency calibration is +/- 4 kHz. I prefer to transmit on 2304.050, TX frequency in cross band - the same number of kHz. I will arrange skeds in the last minute via the EME net and the Internet. My window from is 2 Feb 2130 to 3 Feb 0800, 3 Feb 2230 to 4 Feb 0830 and from 4 Feb 2300Z to 5 Feb 0900. I will stay on 13 cm until the end of March and then I will move to the next band.

ZS6AXT

Ivo found mostly very good signals on 1296 during the SW -- I worked 6 Jan on 23 cm G4CCH, G3LTF, GW3XYW, G3LQR, HA5SHF, HB9Q, N2IQ, VE1ALQ, SM2CEW, OZ6OL, K5JL, W2UHI, KA0Y for initial #165, WA1JOE #166, K0YW, VE6TA and W7SZ - on the horizon with strong QSB, CWNR was JA6CZD and heard were PA3DZL, KD4LT and DF9QX, and on 7 Jan DL6LAU, DJ9YW, F5PL, SM6CKU, F1PYR #167, K5JL and W1QC. At about 20 degree EL, my drive refused to go any lower! I must look into this. Regarding 2nd SWs, I think that they would be quite useful for skeds on the higher bands. Not everybody has feeds for all bands fitted on their dish. Alternate weekends for the higher bands will give time for the change of feeds, etc. The question is where to draw the line. I can operate on 23 and 13 cm with the change over taking me about 1 minute from one band to the other. To change to 6 cm, however, will take up to few hours. So far I received some positive replies to this idea. Thus it is certainly worth serious consideration. Stations who are on 70 and 23 cm will still operate the primary SW. In my opinion sked coordination will be much easier this way. The multi-band stations should voice their opinions. Regarding the Operating Procedures: I think that the repetition of each letter would be VERY confusing. I agree with the proposed CW speed etc., but - some EMEers will have to up their CW skills, hi. In addition, I noticed that during QSOs with some of the bigger stations that they do not use their callsigns during transmissions. This is counterproductive, because there may be a station listening, which wants to work them! Also, after a finished QSO one should always tune around for possible callers. Not everyone is doing this. If the good weather continues, I will install my 6 cm feed for the next SW and will publicize my availability via Moonnet.

NETNEWS

by

[G4RGK, DAVID DIBLEY](#)

WD5AGO had hard drive problems (icing) and expected to be QRT during the Jan SW. He had hoped to be QRV on 5.7 GHz.

K9BCT is working on a new rotation system for his dish and wonders what RPM drives others are using?

KA0RYT is still QRV on 70 cm with 4 yagis.

CT1DMK's dish is repaired. Luiz will be on 70 cm and will stay there until the

spring and then switch to the microwave bands.

DL7APV is working on a solid state PA for 70 cm, and plans to be for the DUBUS Contest.

WB5AFY has a 5.5 m dish and hopes to be back on EME soon.

W2UHI found lots US stations active on 23 cm, but let activity from Eur the 1st night. Frank worked PA3DZL and heard VE6TA with ZS6AXT and HB9Q. His standings on 1296 are now at initial #141, DXCC 33 and state 27.

N2IQ is receiving on 10 GHz with a large horn and just about ready for skeds. He needs a visual moon. **KJ7F** worked VE1ALQ, NC1I, OH2DG, KD4LT, K5WXN and VK4AFL on 432 in Jan.

WB0GGM was QRV for the SW, but scored nil in his skeds with K8UC and JA5NNS. He heard JA1XUJ but made no contacts.

W7MEM has a line on a PA and may have some power on 432 in a couple months.

W5 LUA spent most of the time on 23 cm in Jan. He worked a couple new ones: KA0Y and VE6NA, and heard F1PYR calling CQ. His PA is running pretty well at 900 W out.

WB4BKC's dish platform and 12' (.375 f/d) dish are built. He is now working on the elevation system and feed. He hopes to be QRV on 23 cm in 1-2 months with 200 W.

DL9KR listening in on PA3CSG's sked with N1BUG and heard the (M/M) exchange. He also worked NC1I with (599/599) reports!

VE6TA worked on random during Jan on 1296 HB9Q for initial #61 and ZS6AXT. He also had a partial with HA5SHF.

VE6NA had a great weekend on 23 cm. He worked all he heard except WA1JOE. He warns to be careful about the calls and not be confused between him and VE6TA.

W7QXV worked W4RDI, WA6PY and WA4OFS on 1296 in Jan, and is now at initial #53. Jerry also reports a nice visit with K2UYH.

KL7HFQ was on for the SW and worked DF3RU and heard NC1I with good signals.

OZ9AAR has not worked on his dish because of WX.

K2DH asks if anyone received QSL cards from the OX2K Greenland expedition? (yes).

TI2NA is working toward 23 cm EME.

TI5KD may be on 70 cm EME soon.

K5WXN worked OE3JPC on 70 cm for a new one. Condx seemed to be good but he found very little activity.

WA9OUU is now hearing echoes on 13 cm. He is using a 4.4 m dish and a HB 8x7289 PA on 13 cm with 100 W to the feed. On 23 cm he has 800 W. To the east he needs 15 degs of el.

WA4YGG in EM85 is getting ready for 23 cm EME. Steve is looking for info on feeds.

UR5LX's [e-addresss](#)

OE3JPC's new email address is [OE3JPC](#)

RA3LE worked UA3PTW on 432.

UA9FAD on 70 cm worked UA3PTW.

YO2IS's email address is [YO2IS](#) He is available for 70 cm EME skeds anytime.

W4TJ has anew email address at: [Bill, W4TJ](#)

FOR SALE

KA2VTI has **Andrew's Heliax cables and connectors for sale; \$US1/ft for 1/2" LDF 4, \$2US/ft. for 7/8" LDF 5., \$US3/ft for 1 1/4" LDF 6, \$US4 for 1 5/8" LDF 7. He has both new and "like new" used connectors available - all sold at the same price.** 1/2" N Male or N Female \$US10 PN_4, 7/8" N Male or N Female \$US40 PN_5, 1 1/4 N Male or N Female \$US60 PN_6, 1 5/8 " N Male or N Female \$US80 PN_7, also has 1/2" Heliax and Superflex jumpers of various length and configuration, Polyphaser coaxial cable Surge Arrestors, Andrew's ground kits in all sizes, and Clips/snap ins & tower leg attachment kits. Contact Frank Giambrone at tel Bus. 908 459 5486, Hm 908 459 5454, e-mail at: [KA2VTI](#)

OK1DFC is looking for a YL10xx cavity for 1296 MHz, You can contact Zdenek at [OK1DFC](#)

SK7MW is looking for a 7650 to use on 70 cm EME. Contact Tor at [SK7MW](#)

W1ZX has for Sale a General Radio 1236 30 MHz IF Amplifier for \$US150+s, General Radio 1216A 30 MHz IF Amplifier \$US60+s, MFJ-784 Super DSP filter \$US130 +shipping, HP 415E SWR Meter-brown unit (later model unit) \$US85+s and Noise Com Noise Diodes NC305, glass package \$US33+s. Call Willie at 301 645 5584 between 2000-2300 EST, FAX 301 645 6853, 24 hrs, or e-mail at [W1ZX](#)

AL7OB is looking for 1296 HPA and power supply. Mike is also looking for HPA and preamp for 220.

N2IQ has for sale EW-90 waveguide of various lengths. Some have connectors.

CT1DMK: is looking for a service manual for an HP-1631 scope and analyzer. Luis also needs files for the ROM, if anyone could copy the ROM it would be very helpful. He is having problems with the EPROMS loosing memory.

K5JL has copies of the RIO2000 EME Conference CD available for \$US10.

TECHNICAL

K0YW writes -- I've been doing a lot of work on my TH-327 amp for 23 cm. I had a few flashover problems trying to push it a little hard at my high altitude QTH. Besides lowering the B plus a bit (down to 2700 V keydown from 3500) I would like to share some info about keeping the dust contamination down in the cooling blower inlet air. I know a lot of us use water cooling and don't have this problem... But face it, most hamshacks are a filthy mess when it comes to dust. Up here in the Colorado Boonies, I have convinced myself to do fairly regular DE- Dusting of my tube fins in the HF(4cx1500B) and 6 meter amp (8877). I also clean the fins on my Ten-Tec Titan about every 6-8 months as the tube temps will start to rise as the fins air gaps begin to plug with detritus. On The big microwave amp (TH-327) another problem soon became evident. Dust buildup on the top of the cavity in and below the tube fins actually contributed to an arc-over between the anode bypass cap hot side and the cavity roof - a distance of over .400 in of Ultem dielectric. After seeing all the crud in the plenum after only about 100 hours of operation, I decided to check into an input air-filtering scheme that would really work. I 1st investigated the opencelled foam screen filters that are found with Muffin fans used in rack cooling applications. They were immediately ruled out due to inadequate filtering capacity and too much restriction of the blower input airflow. The blower used to cool my big jug is a Dayton model 4C447, which has a 5" air inlet and provides over 200 CFM of air at 0.3" of static pressure. This is very adequate for the TH-327 at 3kw input

power and 1 kW out (approx. 2 kW plate dissipation or about 44% of the 4.5 kW plate dissipation of the tube). I decided to look back at my Hot-Rod and Racing days for a solution. What I found is a good practical solution in the form of a high performance, low restriction air cleaner element and housing from K&N air cleaners. K&N is the largest manufacturer of after-market low restriction high performance air cleaners in the world. Their patented cotton gauge/aluminum wire mesh filter element has been around for 25 years. I had a 9" dia x 6" tall element and holder in my hotrod junk box. Its bottom base diameter is a near perfect 5 1/8" match to the inlet diameter of the TH- 327 blower. 4 simple aluminum right angle brackets with pop-rivets to the air cleaner base horn and sheet metal screws into the blower inlet plenum made the mounting. To attach the top plate of the air cleaner, I used a 5 1/8" length of 3/4" angle pop-riveted across the end of the air-cleaner base. It picks up a piece of 1/4" all-thread rod that is long enough to pass through the hole in the center of the air-cleaner top plate. I also used a bead of Silicone around the air-cleaner base to blower interface to seal the joint together. The air cleaner will work OK out of the box. However, I recommend using the K&N supplied filter oil that is supplied with the unit. The oil, which wicks into the cotton gauze element, doesn't drip and make a mess. Nor does it smell. It does however trap and hold all of the fine particles in the air. The K7N element is designed for extremely low restriction with up to 1/8" of dirt particles coating the element! This size element will pass over 850 CFM in that dirty condition with less than 0.1" of pressure drop across it. At 200 CFM with a clean element, it is a little over kill! BTW, K&N also supply this (9" dia. filter in several lower heights - down to 2 3/4" high for those with less room). The results have been impressive so far. An additional side benefit is the reduction in blower noise being generated from the inlet. Another advantage of the K&N design is that when it is time to change out the filter, you can merely remove it, wash it with ordinary liquid detergent and water, dry it, re-oil and reinstall! There are of course, a lot of other ways to achieve this result by remoting the filter and using a 5" flex heater duct hose with the appropriate clamps to make the connections. While this application is for a big inlet blower, K&N make air cleaners for many different sizes. Elements are available down to 2 3/4" dia x 2" high. You can easily fabricate your own mounting plates and inlet adapters.

Sources: K&N is carried by many auto accessory stores. However to get the unit that I described, It is easiest to go through one of the High performance automotive catalog stores such as Jegs high performance in Ohio: 1-800-245-4545. This unit is their p/n 599-58-1190 at \$51.99 complete including element, top and base. Summit Racing in Summit New Jersey is another source. Both have good web-sites:

[Summit Racing](#) and
[Jegs](#)

FINAL

G3SEK hasn't received many comments so far, in response to his draft publication of the EME Procedures in the Jan NL. Ian asks, "Does this mean there were none, and everybody is happy? If anyone has seen recent comments, please can they forward them to me. We need to make a 'last call' for comments and then move on to make some firm recommendations that will stand for the next few years". I am in full agreement with the Procedures except for the issue of TX frequency during skeds. I believe stations should TX on a frequency that causes their echoes to be heard on the sked frequency, See my comment in the FEB 00 NL.

There was a question about the dates for Eur World-Wide EME Contest. The dates published in this NL were CORRECT and are 31 Mar/1 April for 432/2.3-6.3 GHz and 28/29 April for 1296/10 GHz.

One of ON5OF's EME contest logs was disqualified by the ARRL, see story in his report.

The FCC has assigned the callsign W2ETI to the SETI Leagues' Moonbounce Beacon now under construction. A special QSL Card will be provided for reception reports. Unfortunately construction of the station is running behind schedule and will not be in operation before the spring.

VE7BQH is again conducting a survey of the dates EMEers want for the 2001 EME Contest. His finding will be sent to the ARRL. Lionel feels that 13/14 Oct and 10/11 Nov are the most likely dates. Other possibilities are 6/7 Oct and 3/4 Nov – the 2001 SWs, but these conflict with Eur Tropo Contests. Please send your recommendations to Lionel at VE7BQH, Your input is needed no later than 12 Feb.

I missed the Jan SW because of business travel. There was heavy snow here over the SW, so it is unlikely I could have been QRV even if I had been home. While traveling I had the opportunity to visit WA7CJO, W7GBI and W7QX and see some exceptional stations. Hopefully the WX will be better for the Feb SW as I am looking forward to the SSB Contest. I hope to hear your SSB off the moon in Feb.

73, Al - K2UYH



SKEDS**2 FEB**Time **432.040**

2230z AL7OB -UA6LGH
2300z AL7OB -S52CW
2330z AL7OB -HA1YA

3 FEBTime **432.040** **432.045** **432.055** **432.070**

0000z AL7OB -DK3WG
0030z AL7OB -DL80BU
0100z AL7OB -DJ3FI
0130z AL7OB -W1ZX
0200z AL7OB -KU3T
0230z AL7OB -W5ZN
0330z AL7OB -N3FA
0400z KL7HFQ-K5WXN **AL7OB -KJ7F**
0430z KL7HFQ-WB0GGM **VK4AFL-W1ZX** **AL7OB -K4EME**
0500z JH1XUJ-WB0GGM **KL7HFQ-K4EME**
0530z JA5NNS-WB0GGM **AL7OB -JH1XUJ**
0600z **AL7OB -JA2TY**
0630z **AL7OB - 7M2PDT**
0900z AL7OB -UA9FAD
1715z **N1BUG -DL9NDD**
2130z WB0GGM-YO2IS
2200z WB0GGM-UA6LGH **K8UC -DL9NDD**
2230z WB0GGM-OH2DG **K4EME -DL9NDD**
2300z WB0GGM-G4ERG **AL7OB -OZ6OL**
2330z WB0GGM-ON5OF **AL7OB -PA4FP**

4 FEBTime **432.040** **432.045**

0000z AL7OB -ON5OF **G4YTL -CT1DMK**
0030z AL7OB -DL4MEA **G4YTL -W1ZX**
0100z **G4YTL -KD4LT**
0130z **G4YTL -WB0GGM**
0530z **VK4AFL-W1ZX**

3 FEBTime **1296.040** **1296.050**

0000z K9BCT -WA1JOF
0030z WA4OFS-WA1JOF
0100z WA9OUU-WA1JOF

0130z W7BBM -WA1JOF
0200z VE6NA -WA1JOF
0230z VE6TA -WA9OUU
1900z WA1JOF-IK2MMB
1930z WA1JOF-LX1DB
2000z WA1JOF-F5PAU
2030z WA1JOF-I0UGB
2100z WA1JOF-GW3XYW
2130z WA1JOF-EA3UM KOYW -I0UGB
2200z WA1JOF-ON5RR VE6TA -HA5SHF
Time 1296.040 1296.050
2230z VE6TA -VE6NA
2300z VE6NA -HA5SHF
2330z W7BBM -KOYW VE1ALQ-F1PYR

4 FEB

Time 1296.050

0000z W5LUA -F1PYR
2100z DJ5MN -WA1JOF
2130z WA8WZG-DJ5MN
2200z WA8WZG-WA1JOF

3 FEB

Time 2304.050

0200z WA6PY -W5LUA
0230z WA6PY -W7GBI
0500z JA4BLC-WA6PY
0530z JA7BMB-WA6PY
2230z WA6PY -OE9XXI
2300z WA6PY -OE9ERC
2330z WA6PY -LX1DB

4 FEB

Time 2304.050

0030z WA6PY -DL6LAU

EME OPERATING PROCEDURES FOR 432 AND ABOVE BY G3SEK

Netnotes by K1RQG

Leave Contest Info or Comments to Allen Here

This information was obtained from: [Scott, KD4LT](#)

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